

SLEEP AND STALL IN AN IN-CIRCUIT EMULATION SYSTEM

ABSTRACT OF THE DISCLOSURE

A method and apparatus for performing sleep and stall operations in a system that includes a device under test and that includes an emulator device that operates to perform a sequence of instructions in lock-step fashion with the device under test. When a first signal is received at the device under test, the device under test initiates the sleep function and turns off its clocks. When the clocks are turned off, the emulator device discontinues execution of the sequence of instructions. When the sleep function has been completed by the device under test a second signal is sent to the emulator device. Execution of the sequence of instructions is resumed when the number of clock signals received at the emulator device since the second signal was received equals a predetermined value. The device under test initiates the stall function upon receiving a first signal and discontinues sending clock signals to the emulator device. The emulator device then discontinues execution of the sequence of instructions that are performed in lock-step fashion. When the stall function has been completed, sending of clock signals to the emulator device is resumed. Upon receiving the clock signals, the emulator device resumes execution of the sequence of instructions. Thereby, both sleep and stall operations are performed such that the device under test and the emulator device remain in lock-step.